Listing of Claims

1   1. (Original) A method for executing two or more computational operations upon

2   elements of a data structure, the method comprising the steps of:

3   (a) determining if any of the two or more computational operations to be executed

4   are operable upon a same element;

5   (b) determining if any of the two or more computational operations determined to

6   be operable upon the same element are in kind operations;

7   (c) determining if any of the two or more computational operations determined to

8   be operable upon the same element and to be in kind operations are

9   addition or assignment operations; and

10   (d) executing the two or more computational operations determined to be operable

11   upon the same element, to be in kind operations, and to be addition

12   operations.

1   2. (Original) The method of claim 1 further comprising the steps of:

2   (e) determining, of the two or more computational operations determined to be

3   operable upon the same element, to be in kind operations, and to be

4   assignment operations, if a same value is to be assigned to the same

5   element; and

6   (f) executing the two or more computational operations determined to be operable

7   upon the same element, to be in kind operations, to be assignment

8   operations, and to assign the same value to the same element.

1   3. (Original) The method of claim 2 further comprising the step of:

2   determining if any of the two or more computational operations determined to be

3   operable upon the same element and to be in kind operations violate a

4   limit, then not performing steps (d) or (f).

1   4. (Original) A system for executing two or more computational operations upon

2   elements of a data structure, the system comprising:

3   (a)   a process operable to determine if any of the two or more computational

4   operations to be executed are operable upon a same element;

5   (b)   a process operable to determine if any of the two or more computational

6   operations determined to be operable upon the same element are in kind

7   operations;

8   (c)   a process operable to determine if any of the two or more computational

9   operations determined to be operable upon the same element and to be in

10   kind operations are addition or assignment operations; and

11   (d)   a process operable to execute the two or more computational operations

12   determined to be operable upon the same element, to be in kind

13   operations, and to be addition operations.

1   5. (Original) A computer readable medium containing computer readable code, the

2   medium comprising:

3   (a)   a code segment for performing a process operable to determine if any of

4   the two or more computational operations to be executed are operable

5   upon a same element;

6   (b)   a code segment for performing a process operable to determine if any of

7   the two or more computational operations determined to be operable upon

8   the same element are in kind operations;

9   (c)   a code segment for performing a process operable to determine if any of

10   the two or more computational operations determined to be operable upon

11   the same element and to be in kind operations are addition or assignment

12   operations; and

13   (d)   a code segment for performing a process operable to execute the two or

14   more computational operations determined to be operable upon the same

15   element, to be in kind operations, and to be addition operations.

1   6. (Original) A processing system for executing two or more computational operations

2   upon elements of a data structure, the processing system comprising:

3   a processor, the processor

4   (a)   determining if any of the two or more computational operations to be

5   executed are operable upon a same element;

6   (b)   determining if any of the two or more computational operations

7   determined to be operable upon the same element are in kind operations;

8   (c)   determining if any of the two or more computational operations

9   determined to be operable upon the same element and to be in kind

10   operations are addition or assignment operations; and

11   (d)   executing the two or more computational operations determined to be

12   operable upon the same element, to be in kind operations, and to be

13   addition operations.

1 7. (Original) A method for categorizing two or more computational operations

2 executable upon elements of a data structure, the method comprising the steps of:

3 determining if any of the two or more computational operations violate a limit;

4 and

5 categorizing the two or more computational operations determined to violate the

6 limit as not commutative.

1 8. (Original) A computer readable medium containing computer readable code, the

2 medium comprising:

3 a code segment for determining if any of the two or more computational

4 operations violate a limit; and

5 a code segment for categorizing the two or more computational operations

6 determined to violate the limit as not commutative.

1 9. (Original) A method for categorizing two or more computational operations

2 executable upon elements of a data structure, the method comprising the steps of:

3 determining if the two or more computational operations to be executed are

4 operable upon a same element;

5 determining if the two or more computational operations determined to be

6 operable upon the same element are in kind operations;

7 determining if the two or more computational operations determined to be

8 operable upon the same element and in kind operations are addition

9 operations; and

10   categorizing the two or computational operations determined to be operable upon

11   the same element, to be in kind operations, and to be addition operations

12   as commutative.

1   10. (Original) The method of claim 9 further comprising the steps of:

2   determining if the two or more computational operations determined to be

3   operable upon the same element and in kind operations are assignment

4   operations;

5   determining if the assignment operations are assigning a same value to the same

6   element; and

7   categorizing the two or computational operations determined to be operable upon

8   the same element, to be in kind operations, and to be assignment

9   operations assigning the same value to the same element as commutative.

1   11. (Original) A computer readable medium containing computer readable code, the

2   medium comprising:

3   a code segment for determining if two or more computational operations to be

4   executed are operable upon a same element of a data structure;

5   a code segment for determining if the two or more computational operations

6   determined to be operable upon the same element are in kind operations;

7   a code segment for determining if the two or more computational operations

8   determined to be operable upon the same element and in kind operations

9   are addition operations; and

10   a code segment for categorizing the two or computational operations determined

11   to be operable upon the same element, to be in kind operations, and to be

12   addition operations as commutative.

1   12. (Original) A method for executing two computational operations upon elements of a

2   data structure, the method comprising the steps of:

3   executing the two computational operations if either computational operation does

4   not violate a limit, and both computational operations do not operate upon

5   a same element;

6   executing the two computational operations if either computational operation does

7   not violate the limit, both computational operations operate upon the same

8   element, and both computational operations are addition operations; and

9   executing the computational operations if either computational operation does not

10   violate the limit, both computational operations operate upon the same

11   element, and both computational operations are assignment operations that

12   assign a same value to the same element.

1   13. (Original) A computer readable medium containing computer readable code, the

2   medium comprising:

3   a code segment for executing two computational operations if either

4   computational operation does not violate a limit, and both computational

5   operations do not operate upon a same element of a data structure;

6   a code segment for executing the two computational operations if either

7   computational operation does not violate the limit, both computational

8   operations operate upon the same element, and both computational

9   operations are addition operations; and

10   a code segment for executing the computational operations if either computational

11   operation does not violate the limit, both computational operations operate

12   upon the same element, and both computational operations are assignment

13   operations that assign a same value to the same element.

1   14. (New) A method for executing two computational operations upon elements of a data

2   structure, the method comprising the steps of:

3   determining if either computational operation violates a limit;

4   executing the two computational operations if either computational operation does

5   not violate the limit, and both computational operations do not operate

6   upon a same element;

7   executing the two computational operations if either computational operation does

8   not violate the limit, both computational operations operate upon the same

9   element, and both computational operations are addition operations; and

10   executing the computational operations if either computational operation does not

11   violate the limit, both computational operations operate upon the same

12   element, and both computational operations are assignment operations that

13   assign a same value to the same element.